#### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

## (19) World Intellectual Property Organization

International Bureau



# 1 (CLI A CHILLEAN A STAIR (CLI A CHILLEAN A C

(43) International Publication Date 27 May 2004 (27.05.2004)

PCT

## (10) International Publication Number WO 2004/044166 A3

- (51) International Patent Classification<sup>7</sup>: A61K 39/395, C07K 14/00, 14/705, 16/00, C12N 5/10, 15/00, 15/11, 15/63, G01N 33/53
- (21) International Application Number:

PCT/US2003/035947

(22) International Filing Date:

10 November 2003 (10.11.2003)

(25) Filing Language:

English

(26) Publication Language:

English

- (30) Priority Data: 60/425,423 \* 12 November 2002 (12.11.2002) US 60/441,847 21 January 2003 (21.01.2003) US 60/453.882 10 March 2003 (10.03.2003) US 60/456,645 20 March 2003 (20.03.2003) US 60/463,676 16 April 2003 (16.04.2003) US
- (71) Applicant (for all designated States except US): INCYTE CORPORATION [US/US]; 3160 Porter Drive, Palo Alto, CA 94304 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): CHAWLA. Narinder, K. [US/US]; 33 Union Square, #712, Union City, CA 94587 (US). TANG, Y., Tom [US/US]; 4230 Ranwick Court, San Jose, CA 95118 (US). GRIFFIN, Jennifer, A. [US/US]; 33691 Mello Way, Fremont, CA 94555 (US). YANG, Yonghong, G. [UG/US]; 4230 Ranwick Court, San Jose, CA 95118 (US). RAMKUMAR, Jayalaxmi [IN/US]; 34359 Maybird Circle, Fremont, CA 94555 (US). KHARE, Reena [IN/US]; 12650 Orella Court, Saratoga, CA 95070 (US). RICHARDSON, Thomas, W. [US/US]; 616 Canyon Road #107, Redwood City, CA 94062 (US). BECHA, Shanya, D. [US/US]; 1 Saint Francis #5508, San Francisco, CA 94107 (US). TRAN, Uyen, K. [US/US]; 2638 Mabury Square, San Jose, CA 95133 (US). KABLE, Amy, E. [US/US]; 9403

Curran Road, Silver Spring, MD 20901 (US). SWAR-NAKAR, Anita [CA/US]; 8 Locksley Avenue #5D, San Francisco, CA 94122 (US). WARREN, Bridget, A. [US/US]; 116 Quail Gardens, Drive, Encinitas, CA 94024 (US). ELLIOTT, Vicki, S. [US/US]; 3770 Polton Place Way, San Jose, CA 95121 (US). MARQUIS, Joseph, P. [US/US]; 4428 Lazy Lane, San Jose, CA 95135 (US). HAFALIA, April, J.A. [US/US]; 15 Midvale Drive, Santa Clara, CA 94015 (US).

- (74) Agent: FOLEY & LARDNER LLP; Washington Harbour, 3000 K Street, N.W., Suite 500, Washington, D.C. 20007-5143 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 2 September 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

### (54) Title: CARBOHYDRATE-ASSOCIATED PROTEINS

(57) Abstract: Various embodiments of the invention provide human carbohydrate-associated proteins (CHOP) and polynucleotides which identify and encode CHOP. Embodiments of the invention also provide expression vectors, host cells, antibodies, agonists, and antagonists. Other embodiments provide methods for diagnosing, treating, or preventing disorders associated with aberrant expression of CHOP.



## **INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US03/35947

A. CLASSIFICATION OF SUBJECT MATTER  IPC(7) : A61K 39/395; C07K 14/00, 14/705, 16/00; C12N 5/10, 15/00, 15/11, 15/63; G01N 33/53  US CL : 424/ 130.1; 435/ 6, 7.2, 69.1, 320.1, 325; 530/ 350, 387.1; 536/23.5; 800/2  According to International Patent Classification (IPC) or to both national classification and IPC				
B. FIELDS SEARCHED				
Minimum documentation searched (classification system followed by classification symbols) U.S.: 424/130.1; 435/6, 7.2, 69.1, 320.1, 325; 530/350, 387.1; 536/23.5; 800/2				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category * Citation of document, with indication, where	appropriate, of the relevant passages	Relevant to claim No.		
A US 5,270,199 A (EZEKOWITZ) 14 December 199	3 (14.12.1993), se entire document.	1-95		
Further documents are listed in the continuation of Box C.	See patent family annex.			
Special categories of cited documents:	"T" later document published after the inter date and not in conflict with the applica	national filing date or priority tion but cited to understand the		
"A" document defining the general state of the art which is not considered to be of particular relevance	principle or theory underlying the inver	ition		
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the ci considered novel or cannot be considered when the document is taken alone			
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the cl considered to involve an inventive step combined with one or more other such	when the document is		
"O" document referring to an oral disclosure, use, exhibition or other means	being obvious to a person skilled in the			
"P" document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent fa	mily		
Date of the actual completion of the international search	Date of mailing of the international search	report .		
24 June 2004 (24.06.2004)	1 JUL 2004			
Name and mailing address of the ISA/US  Mail Stop PCT, Attn: ISA/US  Commissioner for Patents  P.O. Box 1450  Alexandria, Virginia 22313-1450	Michael Pak  Telephone No. 571-272-0507	ace for		
Facsimile No. (703) 305-3230		•		

Form PCT/ISA/210 (second sheet) (July 1998)

INTERNATIONAL SEARCH REPORT	PCT/US03/35947	
		l
Continuation of B. FIELDS SEARCHED Item 3: BRS, GENESEQ, PIR, SWISSPROT		
search terms: carbohydrate associated protein, mannose binding protein, mannose b	oinding lectin 2	

Form PCT/ISA/210 (second sheet) (July 1998)